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The Daily Life Challenges Faced by the Researcher in Arctic

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Abstract

Existing research and the body of knowledge pertaining to the daily life challenges at an extreme cold weather conditions in Arctic and Antarctic expeditions were less explored by scholars and researchers. The Arctic external environment is extremely cold, dark and isolated during winter. During the expedition in Arctic, the researcher are physically isolated from the outside world, with darkness and weather conditions exerting severe restrictions on travel, and are separated from their families and friends. This study attempted to describe the major challenges of researcher encountered in Arctic. As an instrument herself, the researcher recorded and updated her daily life and the challenges in her reflective journal throughout the expeditions. Analyses of the results showed that there are many challenges that she confronted before she completed the mission of expeditions. The main challenges that the researcher faced were the unpredictable and dangerous Pole conditions ~~and~~, the harsh terrains, extreme cold weather, researcher's injuries difficulties in communication, equipment problems, food and daily life in Arctic as an expeditor. However despite all the daily challenges faced by researcher for 10 days of her journey, she manages to overcome those problems mention above and accomplished the mission. The findings and researcher's experiences dwelling with the challenges in this research is benefitted to all especially Malaysian in every angle of existence such as finding strength in daily life, travelling skills, facing unpredictable weather condition, motivation skills and education purposes.

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Keyword: Challenges; motivation skills; single case & explorative case study; reflective journal; qualitative research design ;NVIVO 10

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1. Main text

According to Palinkas (1986), the field of Antartic and Arctic psychology began as a scientific enterprise under Eric Gunderson of the United States, Jean Revolier of France and, Tony Taylor of New Zealand, the leadership of men. It began after the International Geophysical Year and the establishments of permanent research stations on the ice (Palinkas, 1986). These stations were designed to provide protection from the harsh environment, to measure physical comfort, and to insure a continuous year-round presence on the ice.

Men and women who inhabited these stations were subjected to a number of stressors that may be categorized into isolation, confinement and environment or ICE for short. The stations are physically isolated from the outside world with darkness and weather conditions preventing travel to and from the continent of Antarctic ice for different time periods (Palinkas, 1986). The cold conditions in Antarctica are also comparable to that experienced in Arctic conditions.

The Arctic is being impacted by drastic climate change, posing a significant challenge to the expeditors. According toLynn (2002), life in extreme environments required the explorers to face the difficult challenges such as pressure, temperature and alsounusual atmospheric condition**.** Travelling across the dynamic polar ice requires patience and agility and a flexible attitude to deal with the many obstacles that pop up over the course of each day. The whole challenge takes place on the frozen ice on top of the Arctic Ocean. The ocean ice pack is moving and the ice can and does crack causing open leads and pressure ridges and chances to fall into the icy water is so great. Even before the expedition challenge itself begins, there can be major delays and changes to the expedition due to weather condition and others. Once on the ice, expeditor progress will depend on the weather conditions, the physical and mental state of the expeditor, whether the ice is flat or broken up, whether the expeditor encounter any leads (breaks in the ice) or encounter polar bears. There are so many challenges that the expeditor absolutely faced in the daily life in Arctic.

2. The Study

This present study is aimed to identify daily living challenges faced by researcher during her Arctic and Antarctic expedition. This study is also aimed to discover way to overcome the challenges in achieving an optimal performance. Therefore, all her experiences in overcomes the challenges in the Artic expedition can be shared with all expeditors embarking on their journey to the extreme cold weather.

3. Methodology

This research employed qualitative approach in conducting this study. Yin (1994) identified four types of case study namely the explorative case study, the explanatory case study, the casual case study and single case study. Single case study and explorative case study types are selected as the research design for this study because it's suitable with the nature of this study (Dayang& Abdul Hafidz, 2009). The subject in this study involved only one participant (researcher herself as a subject of the study) who explores life challenges throughout the whole expeditions in the Arctic and Antarctic. In qualitative research, researcher is a part of research process and become the research instrument. According to Teresa (2008)as a research instrument, the researcher becomes closely involved with their stories and experience. Data are processed done by the researcher, who makes decisions about what is regarded as data, how those data are collected and finally how the data are used.

To record her experiences the researcher uses a diary or reflective journal. A reflective journal is a personal record of learning experiences for researcher of any course which she undertakes, or the daily routine and challenges in the training and both expeditions. Sometimes it called as learning log or a learning journal or a document that gradually grew where the researcher write, record and update the daily challenges. The researcher did not only record the development of her ideas and insight but she did reflection upon observations, her experiences and responses to situations, which can help her to gain understanding on how the challenges motivate

and improve her performance to complete the expedition. The journal also supported with photos, drawings and other types of material as evidences.

The data was analyzed with constant comparative method (CCM) for forming categories, establishing the boundaries of the categories, assigning the segments to categories, summarizing the content of each category and finding negative evidence. The goal is to discern conceptual similarities, difference and to discover patterns (Tesch, 1990; Dayang& Abdul Hafidz, 2009). NVIVO version 10 software and its powerful functions were used to perform the qualitative analysis. The data analysis involved three stages which is open coding, axial coding and selective coding (Dayang& Abdul Hafidz, 2009).

4. Results

The Arctic was extremely cold and dark during winter. During her expedition, the researcher was physically isolated from the outside world without families and friends (Palinkas, Johnson. et al., 2003). The darkness and weather conditions had exerted severe restrictions to the journey. The extreme cold temperature was among the tough adjustment that the researcher had to take. This is because; the weather was changed unexpectedly where it could suddenly drop. Besides that, there were also some other problems occurred during the expedition which make the whole journey more challenging. Among them are the researcher's injuries, communication problems, equipment problems and also food intake. The following figure visually illustrates the challenges faced by the researcher during her expedition which is based on her daily journal entries.

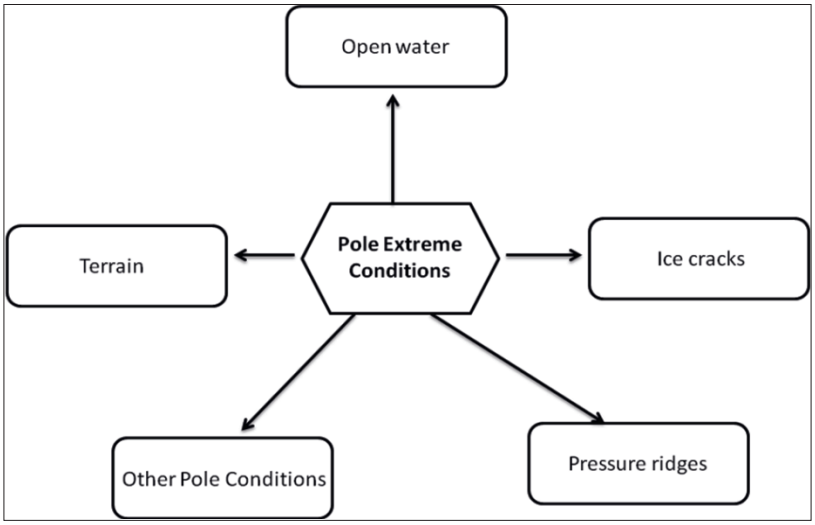

Figure 1: Pole Extreme Conditions

4.1 Pole Extreme Conditions

The expeditor experienced many challenges during her expedition. The researcher had to face difficulties in crossing open water with various sizes of hard rocks, "sastrugies" (frozen snow wave) terrain, ice cracks, pressure ridges, thin ices, icebergs and also big possibility to encounter pole bears.

4.1.1 Open water

As taken from the researcher's journal entries:

> *"There are vast oceans everywhere with thousands of cracks*
> *"I noticed a number of oceans and of course with cracks everywhere. There was one crack about one square meter long".*

4.1.2 Terrain

The terrain in arctic also giving the researcher a hard time with the freezing temperature, the ground was practically covered with ice and snow. The frozen ocean waves were seen a lot which made the journey harder. Many areas were covered with hidden thin ice layers that could bring danger or even death if someone steps onto them since they might fall into the icy freezing water beneath. The difficulties that the researcher experienced were described in her entries as below:

> *"Happiness doesn't last that long. After 40minutes journey, it got really slippery, the terrain became very icy and with a lot of ice cracks too. The ski seemed to be holding up though. It was an easy walk after that. Well, in relative terms, as I was limping like hell".*

4.1.3 Ice Cracks

A huge, emerging ice crack was unexpectedly discovered during her expedition which can be seen in her entries:

> *"Was working very,very,very hard – the day had not begun yet. We started seeing a lot of ice cracks, everywhere - left and right, some deep, some shallow. If there are sharp edges, it means that it's just happened. I saw few blocks of blue ice".*

> *"Wake up in the morning feeling slightly moody as I look at the surrounding that doesn't look good and safe. When we started walking about half an hour I see Danger!. Oh my god...oh my God, I'm so worried and panic to look at all the ice cracks and a very ugly looking iceberg! This is not good. I have to get moving as fast as I could".*

4.1.4 Pressure Ridges

The ice caps that covers the Arctic Ocean and seas were constantly moving - shifting, splitting and colliding. When the great sheets of ice collide, ridges of ice - called "pressure ridges" - build up at the point of collision. These collisions are caused by pressure exerted on the ice by the force of the wind or tides and also by the ice movements of the underlying ocean currents. This was also one of the challenges that the expeditor had to face which she had clearly described in her entries:.

"There was another pressure ridge ahead but I couldn't see from where, so, I skied even faster – and there it was. I saw a merge; the crack was about two feets across. The ice was soft but we had no choice".

"More pressure ridges, more open water as far as we could see. That whole incident took almost three hours and we were exhausted but we couldn't find a place to pitch our tent".

4.1.5 Other Pole Conditions

The next challenge during the expedition was the Pole conditions itself. which portrayed in the researcher's entries:

"When we got off, it was freezing like hell but the conditions were actually excellent since it was sunny with blue skies".

"Even though it was night time but the sunlight was all day long".

"Biting wind.Headwind today, unlike yesterday. I was actually wakened up by the flapping sounds of my tent due to the strong wind."

"I woke up earlier than usual. It was freezing cold when I got out from my sleeping bag. I opened the zipper window just to check on the weather outside. It was gloomy, no wonder I was feeling very cold".

"The vapour from my breathing overnight and the freezing temperature from outside the tent leave a lot of crystallized ice hanging at the rooftop of my tent".

4.2 Expeditor's Injuries

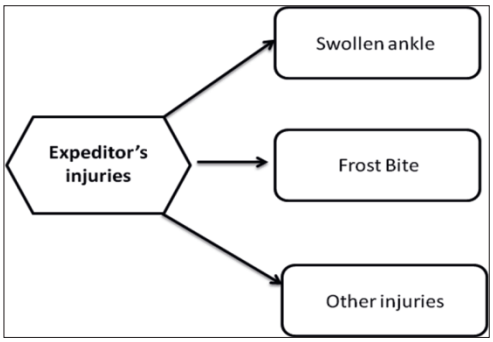

Figure 2: Expeditor's injuries

4.2.1 Swollen ankle

The swollen ankle was one of the biggest challenges as stated in her entries:

"My swollen ankle got worse and my Achilles tendon was killing me. Luckily, I have the straps and the strong bandage to support my movements. I can even feel something wrong with my right leg as I have been using only one side of my body for the past few days to lighten the burden on the injured leg"

4.2.2 Frostbite

Besides that swollen ankle, the researcher experienced the frost bite as well. Due to extreme and wet freezing temperature, her skin was literally damaged due to the frostbite.

4.2.3 Others injuries

The researcher caught cold, pain and others injuries during her expedition. In her entries she stated that:

> *"It took me an hour to put up my tent. The strong wind makes me cough a lot. I have phlegm and can feel chest pain too. All these are the common effects of the North Pole and South Pole challenge. Some people will get dry cough at the beginning of the journey especially if they face head wind all the way. Too much breathing through the mouth is also one of the factors".*

> *"In the late evening, I felt severe pain on my left tendon and we had to stop for me to take more painkillers. We moved slower after that but the ice was drifting us closer to the pole. I just wanted to keep going and going. My body feels so much lighter now".*

> *"My cough is quite horrific today. My throat feels like the flesh inside is exposed and the freezing air is just eating away at it".*

> *"My blisters are getting even worst today. I had to pull off the skin to take out the blister's water in it. It was so painful but that is the only way for quick recovery."*

4.3 Temperature

Arctic explorer had to face extremely cold temperature. The thin air at altitudes often climb to 10,000 feet (3,048 meters) above sea level. Table 1 shows the temperature faced by researcher in 10 days of her Arctic expedition. The temperature was gauged using camping thermometer

> *"Then suddenly he screamed at me and said "oh my God you have frostbite on your right cheek." I had taken my glasses off so the freezing cold directly set to my skin. not only that, the frostbite had taken my thumbs too".*

> *"My thumbs were throbbing with pain. The tip of both of my thumbs was already white. It was worst where it got warmer. My check felt like a raw meat.*

Table 1: Temperature for 10 days in Arctic

Day	Temperature
Day 1	-38C
Day 2	-38C
Day 3	- 38C to – 40C
Day 4	-28 C
Day 5	- 28 C
Day 6	-18 to - 22 C
Day 7	- 28 - 30C
Day 8	- 18 to – 14 C
Day 9	- 18 to - 12 C
Day 10	- 14

4.4. Difficulties

Researcher faced so many other challenges and difficulties throughout her journey such as communication with satellite phone with poor connection, worn out equipment, pilling off ski skin and digestion problems.

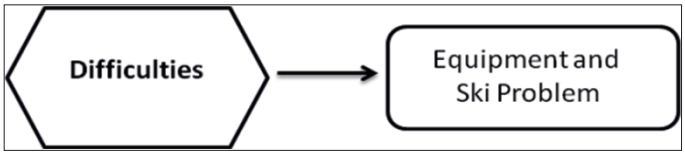

Figure 3: Difficulties

4.4.1. Equipment and Ski Problem

Besides experiencing the environmental challenges, the researcher also had problems with her ski equipment. She expressed her problems in her entries:

> *"I was stressed again when my ski skin began to give me trouble when it started to peel off. My ski skin only lasted half a day. I just wanted to scream out of sheer frustration; it is unbearable when thinking of the terrain and the ski skin".*
>
> *"The spare ski and the new ski skin have made it worse I guess because it is difficult to stick ski skin on the ski on a cold surface and cold temperature. I can't keep on using my fuel and stove to warm it".*
>
> *"Satellite phone did not work well with thick clouds around. This is really frustrating as I could not sent information back at home. I'm tired to kept on resending file through my laptop as the line kept on putting it down.*

5. Discussion

In this research, the drives factors that make the researxher to push herself beyond boundries in facing great challenges are Mental strength factors, Emotion Strength factors, Physical Strength factors and Social Strength Factors which is now she named it as MEPS Concept.) It helps her to overcome fears and facing daily life

challenges better in achieveing the intended goals. At the same time, the findings could be a new dimention or new edition of self efficacy concept suggested by Albert Bandura 1986. The self-efficacy concept is derived from the "if you think you can , you can" phase which is an individual self-believe or a strong mind set. However, this research findings combined 4 elements or quotients: Mental, Emotional(spiritual), Physical and Social to provide a greater strength in order to overcome all the challenges and obstacles that she had faced during the journey. Such elements could be great motivation factors to performe.

Researcher belives that the findings will contribute to the Malaysia Ministry of Education especially to its goals and objectives which is an on going efforts in developing the individuals' potentials in a holistic and intergrated manner. Besides that, it works align inproducingindividuals who are intellectually, spiritually, emotionally and physically balanced based on firm belief and devotion to God. She believes that the findings will not only help people to go beyond boundries in what ever they do in life and career but it could be a platform to promote a balance human being with all round of motivations factors.

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